

STANDARD STRUCTURAL SPECIAL INSPECTIONS

LIST #	CODE	DESCRIPT	WHAT IS INSPECTED	NOTES	SHOP DWG
1	ALUMINUM FAB	ALUMINUM FABRICTN AND ERECTION	<p>In the shop: Verify conformance with DPD approved shop drawings. Inspect material certifications (base metal and consumables), fabricator's quality control procedures, weld procedures, welder qualifications, member prep, welding, non-destructive testing, and subassemblies.</p> <p>In the field: Verify installation conforms to DPD approved design drawings. Inspect all connections (includes all welds, bolts, screws, isolators, rivets, etc.).</p>	<p>This inspection is generally chosen for special designs such as large skylights, architectural canopies, marine walkways or other unusual structural applications.</p> <p>This would not, however, be selected for aluminum curtain walls which fall under the CURTAIN WALL FAB AND ERECTION category.</p>	YES
2	AUGER TEST	AUGERCAST PILES - G/R/F TEST	<p>The Grout/Reinforcing steel/Flow test is verification testing of the grout mix design and the inspection of the reinforcing steel.</p> <p>See Director's Rule 11-2006 <i>Augercast Piles: Mix, Inspection, and Reporting Requirements</i> for detailed requirements.</p>	<p>This inspection is always used in conjunction with a geotechnical inspection assignment for AUGERCAST PILE INSTALLATION.</p> <p>This inspection does not include the verification of depth, location, soil composition, and grout volume provided by the geotechnical AUGERCAST PILE INSTALLATION.</p>	NO
3	BATCH PLANT	BATCH PLANT INSPECTION	<p>A special inspector is present at the plant during the mixing and batching of concrete for each load being sent to the jobsite.</p> <p>See Director's Rule 14-2006 <i>Continuous and Periodic Batch Plant Inspection Procedures</i> for detailed requirements.</p>	<p>They batch plant inspection category is always required for Concrete mixes with f'_c greater than 6,000 psi or when structural lightweight concrete is being used.</p> <p>Not required when the mix is in accordance with SBC Table 1905.2 or when a mix has been granted continuously approved status.</p> <p>Other conditions requiring BATCH PLANT INSPECTION (see SBC Sec 1704.2) are determined during construction at the preconstruction conference.</p>	NO

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4	BRICK VENEER	BRICK VENEER	Periodically inspect installation during the placement and fastening of the veneer. Inspect materials, supports, anchorages, and ties.	Used when special inspection is required for essential facilities by Sec 1704.5 or when special inspection of architectural components for seismic resistance is required by Sec 1707.	NO
5	CIP CONCRETE	REINFORCED CONCRETE - CIP	The inspection and testing of all concrete materials, concrete placement, reinforcing steel placement, reinforcing steel welding, anchor bolts, hold downs, seismic straps, embeds, and stud rails. (See SBC Table 1704.4).	This inspection includes all the key inspections and tests required for traditionally reinforced (not prestressed) concrete cast on the project site. This scope of this category includes both the CONCRETE MATERIALS TESTING and REINFORCING STEEL PLACEMENT inspections.	NO
6	CNCRT MATRLS	CONCRETE MATERIALS TESTING	Verify that the concrete mix conforms to project specifications, make concrete test cylinders, and report test results. This does not include watching the placement and consolidation of the concrete or the inspection of any of the reinforcing steel or embedments.	This is a stand alone inspection if used when another special inspection agency (in a separate structural assignment) is providing inspection of REINFORCING STEEL PLACEMENT. It is included in the scope of REINFORCED CONCRETE – CIP.	NO
7	COLD STEEL	COLD FORMED STEEL FRAMING	Verify that installation of all members conforms to DPD approved design drawings Inspect connections (includes all welds, bolts, or screws used to fasten components within the system, including struts, braces, and hold-downs). See SBC Sec 1707.4	If structural steel elements greater than 3/16" in nominal thickness are included within the Cold Formed Steel frame, an additional callout of STEEL ERECTN and STEEL FAB would be needed	YES If MBMA Metal Bldg

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8	CURTAIN WALL	CURTAIN WALL FAB AND ERECTION	Verify that the curtain wall system being installed conforms to the approved shop drawings and inspect all attachments (keyways, bolts, welds, etc.) that hold it to the building.	See SBC Sec. 1707.6 Architectural Components for exceptions The attachments embedded in concrete members or welded to the structural steel are included in the scope of either CONCRETE CIP or STEEL ERECTN	YES
9	EPOXY ANCHR	EPOXY GROUTED ANCHOR BOLT INST	Inspect anchors for size, length, grade and type. Verify the specified adhesive is being used. Inspect installation procedures. Conduct proof tests if specified.	This is a special inspection callout when anchors are designed to work in tension. When a hold down anchor is missing or miss located, the DPD building inspector will require additional special inspections on a case by case basis.	NO
10	EPOXY GROUT	EPOXY GROUTING	Inspect reinforcing to be grouted. Verify the specified adhesive is being used. Inspect installation procedures. Conduct proof tests if specified.	The scope of this inspection is similar to the EPOXY GROUTED ANCHOR BOLT INST inspection and is used when the plan shows that reinforcing steel or all-thread is to be anchored into an existing concrete structure.	NO
11	INTUMESCENT	INTMSNT FIRE-RESISTIVE COATING	Check substrate, verify the specified materials are provided, inspect the application and check thickness per manufacturer's specifications.	The scope of work and protection required should be shown on the DPD approved plans.	NO
12	MECH ANCHOR	MECHANICAL ANCHOR BOLT INSTALL	Inspect anchors for size, length, grade and type, installation procedures. Conduct proof tests if specified.	Typically this would used to anchor mechanical and electrical components, antennas, or other elements requiring special inspection.	NO
13	OTHER STRUCT	OTHER STRUCTURAL	Used for inspections that are not on the dropdown list (e.g., seismic isolation systems, storage racks, mechanical electrical components, etc.) or procedural inspections (e.g. verify condition of existing concrete, verify location of PT tendons, etc.).	These are stand-alone inspection items and are not intended as supplementary descriptive comments for standard inspections.	NO
14	PARPT BRACES	PARAPET BRACES	Inspect the installation of the parapet braces. This includes the use of lag screws, bolts, welding, or other fasteners used to install the brace.	Used on retrofits of existing structures. EPOXY GROUTED ANCHOR BOLT INST would be an additional inspection callout if epoxy anchors are shown on the drawings.	NO

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LIST #	CODE	DESCRIPT	WHAT IS INSPECTED	NOTES	SHOP DWG
15	PRECAST CNCR	PRECAST CONCRETE	<p>During erection: periodic inspection of the precast elements. Inspect welding, added reinforcing, grouting, bearing plates, bolts, etc.</p> <p>During fabrication: inspection of all the elements included in the REINFORCED CONCRETE – CIP category. If prestressed, inspect all prestressing tendons and prestressing procedures (see SBC Table 1704.1).</p>	<p>Fabrication inspection is not required in an approved fabrication facility (SBC 1704.2.2).</p> <p>The DPD Structural Inspection Section maintains a roster of certified fabricators. Each approved fabricator has a certificate to verify their certification to the owner and testing agency.</p>	YES
16	PREFAB WOOD	PREFAB WOOD STRUCTURAL ELEMENT	Fabrication inspection of structural panel sheathing and framing members for grade, size, and fastening.	This category is used for prefabricated wood structural panels	NO
17	PT PRESTRESS	PT PRESTRESSED CONCRETE	<p>Inspect the placement of prestressing elements and stressing procedures.</p> <p>Inspect to DPD approved shop drawings.</p> <p>See Director's Rule 20-2006 <i>Post-Tensioned Concrete Installation and Special Inspection Requirements</i> for details.</p>	PT PRESTRESSED CONCRETE is not a stand alone inspection - it is always accompanied by the selection of REINFORCED CONCRETE - CIP.	YES
18	RF MASONRY 1	REINFORCED MASONRY LEVEL 1	Inspect construction procedures, masonry components, reinforcing, sampling, and testing per tables 1704.5.1 and 1708.1.2	Periodic inspection	NO
19	RF MASONRY 2	REINFORCED MASONRY LEVEL 2	Inspect construction procedures, masonry components, reinforcing, sampling, and testing per tables 1704.5.3 and 1708.1.4	Continuous inspection	NO
20	SEISMIC TIE	SEISMIC TIE INSTALLATION	Inspect the materials, fasteners, and installation of the seismic ties.		NO
21	SHORING WELD	SHORING SYSTEM WELDING	Inspect the welding of any piles, braces, or other load bearing assemblies used in the shoring system	This is a companion inspection the Geotechnical special inspection SHORING INSTL/PRFRM MONITORING.	NO

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22	SHOTCRETE	SHOTCRETE	<p>Inspect reinforcing steel, operator qualifications, mix approvals, shooting procedures, test panels (if required), specimen tests, and core evaluations.</p> <p>See Director's Rule 13-2006 <i>Shotcrete for Structural Applications, Including Duties and Responsibilities of Registered Special Inspectors</i> for details.</p>	<p>When shotcrete used per SBC Sec 1914</p> <p>This may be used in addition to CIP REINFORCED CONCRETE - CIP when both processes are utilized (as in shotcrete walls and infill used in conjunction with CIP footings, columns, pilasters, and decks).</p>	NO
23	SPRAYED FIRE	SPRAY FIRE-RESISTIVE MATERIALS	<p>Inspect the substrate, materials, application, and testing.</p> <p>See Director's Rule 7-99 <i>Field Inspection Procedures For Spray-Applied Fire Resistive Material (SFRM)</i> and SBC Sec 1704.11 for details.</p>	<p>The requirements for SFRM shop drawing submittals are outlined in Director's Rule 6-99 <i>Method of Specifying Thickness of Spray-Applied Fire-Resistive Material (SFRM) for Structural Steel</i>.</p>	YES
24	STEEL EMBED	STRUCT STEEL EMBED IN CONCRETE	<p>Inspect the fabricated embed (includes all welding) and its placement.</p> <p>This inspection is also included in the scope of REINFORCED CONCRETE – CIP.</p>	<p>This inspection can be used as a stand alone item in addition to REINFORCED CONCRETE – CIP when It is used to call attention to especially critical connections (e.g. connecting the structural framing to concrete core walls, unusual composite designs, and unique elements in a seismic resistance system, etc.).</p>	NO
25	STEEL ERECTN	STRUCTURAL STEEL ERECTION	<p>Inspect the erection of all structural steel members (includes all welding, and high strength bolting), metal deck installation, stud welding, welding procedures, welder qualifications, and nondestructive testing. (See SBC table 1704.3)</p>	<p>This inspection is usually paired with STRUCTURAL STEEL FABRICATION on large steel buildings or any projects having complete penetration welds done in the fabrication shop.</p>	NO
26	STEEL FAB	STRUCTURAL STEEL FABRICATION	<p>Verify conformance to the designer's approved shop drawings. (See SBC table 1704.3)</p> <p>Inspect material certifications (base metal and consumables), fabricator's quality control procedures, welding procedures, welder qualifications, completed welds, nondestructive testing, and subassembly.</p>	<p>This inspection is not required if the fabricator is an approved fabricator (e.g. AISC-certified or equivalent per SBC 1704.3 exception 3) and this inspection will be waived as needed if an approved fabricator is being used.</p> <p>AISC certified fabricators are listed on the web @ aisc.org.</p>	NO

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LIST #	CODE	DESCRIPT	WHAT IS INSPECTED	NOTES	SHOP DWG
27	STEEL JOIST	STEEL JOIST ERECTION	Verify that installed joists and bracing are in conformance with DPD approved shop and design drawings and inspect all field connections.		YES
28	STEEL PLCMNT	REINFORCING STEEL PLACEMENT	<p>Verify that the reinforcing steel and embedments conforms to the approved DPD design drawing</p> <p>Inspect the reinforcing steel for size, location, grade, laps, bends, clearance, and cleanliness.</p>	<p>This is a stand alone inspection if used when another special inspection agency (In a separate structural assignment) is providing the inspection of CONCRETE MATERIALS TESTING.</p> <p>It is included in the scope of REINFORCED CONCRETE – CIP.</p>	NO
29	STEEL SEISMIC	STEEL SEISMIC RESISTANCE SYSTM	<p>Continuous inspection of the seismic resistance system (includes all welding, high strength bolting, and nondestructive testing).</p> <p>See SBC sec 1707.2 and 1708.4</p>	This inspection is used in addition to STRUCTURAL STEEL FABRICATION and STRUCTURAL STEEL ERECTION when quality assurance per AWS D1.8:2005 Structural Welding Code – Seismic Supplement (formally FEMA 353) is specified.	NO
30	STEEL STAIR	STEEL STAIR ERECTION	<p>Inspect prefabricated stair unit for conformance to DPD approved shop drawings.</p> <p>Inspect all attachments, supports, and hangers of stair assemblies and landings.</p>	The handrails are inspected by DPD	YES
31	TIBACK GROUT	TIEBACK GROUT STRENGTH	Verify grout mix and make test samples of grout used in the anchorages of tieback assemblies.	This is a companion inspection to the geotechnical shoring system TIEBACK ANCHOR INSTALL & TEST.	NO
32	WOOD SEISMIC	WOOD SEISMIC RESISTANCE SYSTEM	Inspect nailing, bolting, anchoring and other fastening of components within the seismic-force-resisting system, including drag struts, braces and hold-downs.	This inspection is all inclusive of the wood system and it is not necessary to select additional other inspections (e.g. hold-downs, anchor bolts, shearwall/diaphragm nailing, etc)	NO